

REMARKS/ARGUMENTS

Applicant has enclosed the article requested by the examiner from the *Journal of Magnetic Resonance* 72, 211-223 (1987).

The examiner has objected to claims 2, 3, 5, 8, 9, and 11 under 35 U.S.C. §112, first paragraph, as follows: "The claims are lacking a description of how Fourier components are used in combination with Green's theorem. Reconsideration is respectfully requested. The examiner's attention is directed to Equations 8, 9, 10, and 11 on pages 4 and 5 of the original specification.

The examiner has rejected the claims under 35 U.S.C. § 103(a) as unpatentable considering Schenck et al. and Ishibashi. Reconsideration is respectfully requested.

The examiner points out that Schenck et al. do not teach:

1. the use of inner and outer coils,
2. that the resulting field strength "falls within a tolerable range of a target magnetic field gradient under shielded conditions", as claimed,
3. setting a number of inner or outer coils, nor the number of turns of each coil,
4. the use of Fourier components,
5. the calculation of leaking fields,
6. resetting the number of outer coils and number of turns of each outer coil if the magnetic field distortions are outside the tolerable range.

As pointed out by the examiner, Ishibashi teaches the method of calculating magnetic fields caused by nonlinear eddy currents by using Green's function and iterative method. However, the purpose of Ishibashi's calculation is different from that of Applicant's calculation. The purpose of Ishibashi's calculation is to obtain magnetic fields. On the other hand, the purpose of Applicant's calculation is to determine the number of outer coils and the number of turns of each outer coil that reduce magnetic field distortions caused by eddy currents to within

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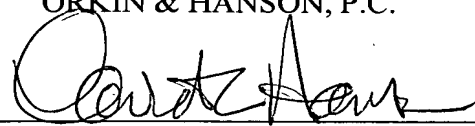
the tolerable range. Ishibashi does not teach the method of reducing magnetic field distortions caused by eddy currents to within the tolerable range.

In view of the foregoing amendments and remarks, it is urged this case is now in condition for allowance.

Respectfully submitted,

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By



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